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Preface

The objective of this market study is to estimate the absorption potential of the Bureau of Land Management's ("BLM") 7,500± acre site ("the subject property") in North Las Vegas, Nevada ("North Las Vegas"). This level of analysis is fundamental to its subsequent appraisal as well as the formulation of an effective disposal strategy. Figure 1 is a map of the Las Vegas Valley ("the Valley") depicting the approximate location of the subject property. The Standard Assumptions and Limiting Conditions used in this report are presented in the Appendix:

Restrepo Consulting Group ("RCG") was commissioned by the BLM to estimate potential real estate absorption rates, based on the land use plan prepared for the subject property in January 1999 by Post, Buckley, Shuh & Jernigan (PBS&J). Figure 2 depicts the land use plan that is contained in the master plan document titled, *City of North Las Vegas 7,500± acre Water and Sewer Master Plan* ("PBS&J report" or "the master plan").

The PBS&J report was evaluated using state-of-the-art regional economic analyses as well as development planning practices specific to privately developed master planned communities (MPCs). In order to assess the master plan's land use mix relative to optimizing values and absorption rates, and to evaluate its consistency with development patterns in the urbanized portion of Clark County ("the Valley"), the following historical and projected Valley-wide variables were analyzed:

- Economic trends with respect to major market supply and demand cycles
- Development and growth patterns and trends
- Real estate market dynamics
- MPC programming and disposition practices
- Population growth, employment and demographic trends

In order to avoid duplication, we defer to the PBS&J report on many of the environmental and infrastructure issues that deal with development of the subject property including, but not limited to, soils characteristics, area topography and flood control facilities. Further, RCG did not evaluate proposed public and semi-public service facilities. However, our research, exposure to other competitive MPCs, and the physical limitations of the subject property indicate that the master plan's acreage allocations to public and semi-public acreage appear reasonable.

The focus of this market study is on the various "for-profit" market segments (e.g., residential and office) identified in the master plan. The analyses and ultimate conclusions contained within this report are analyzed within the context of these land uses.

The subject property is analyzed at the "Valley" level for two reasons:

1. Its size demands that it be analyzed in a regional context, and

2. The subject property is likely to follow the Valley's development patterns rather than those of North Las Vegas.

Considering all of these factors within the context of the PBS&J report, allowed us to estimate the subject property's total expected market share and to develop its phasing, development and disposal strategy.

A. Major Sources of Data Considered

This section provides an overview of the major sources of data that were used throughout the study to formulate the conclusions and recommendations for the market segment analyses, and the population, employment demographic and absorption projections.

1. Market Segment Analysis

a) Single and Multi-Family Market

The various data providers that report on single family development define the specific market areas. The Meyers Group produces a report entitled Las Vegas Area Competitive Housing Report that reports a variety of single-family market statistics. This report also provides details on a subdivision-by-subdivision level. Dennis Smith's Homebuilder's Research publishes the Orange Report that details sales by market area, builder, price range, housing type, etc. DES and Associates produces a report called MarketWatch that utilizes the equivalent market areas defined in the Meyer's Group reports. The Homebuilder's Research and Meyer's Group reports utilize essentially the same market areas for analysis of single-family trends. Given that these reports are generally accepted local data sources, we formulated our market area definitions based on these reports.

There are also a variety of studies available concerning multi-family trends in the Valley. however, there are no conclusive primary studies that deal with market-wide rental, vacancy, occupancy or absorption of multi-family rental housing. The most authoritative and in-depth sources include publications by Hendricks & Partners, Clark County Comprehensive Planning, CB Richard Ellis, and the UNLV Center for Business and Economic Research. Admittedly, the data is incomplete, but some conclusions as to recent market trends can be drawn. Furthermore, the data is conclusive enough to allow a relative comparison of the North Las Vegas multi-family rental housing market to the overall Valley market.

b) Industrial, Retail and Office Markets

The industrial, retail and office market data used herein were prepared by Lee & Associates and Restrepo Consulting Group and is compiled mainly in the Las Vegas Quarterly Retail Market Summary Report, the Las Vegas Quarterly Office Market Report and the Las Vegas Quarterly Industrial Market Report.. These reports are generally considered to be the most detailed commercial market analyses available for the Valley

c) Population, Employment and Demographic Projections

Currently, the most widely used employment projections are based on the Regional Economic Models, Inc. ("REMI") projections calibrated by the UNLV Center for Business and Economic

Research ("CBER"). These projections are the most far-reaching, incorporating the most thorough data and model assumptions. They have become the control totals for a variety of public agencies, including the Regional Transportation Commission ("RTC") and Southern Nevada Water Authority ("SNWA").

Employment figures for North Las Vegas are available from third party data sources. We utilized National Data System's ("NDS") Info Mark Express to generate historical, current and future employment estimates for the North Las Vegas area. Population growth and projections for North Las Vegas are not as readily available as those for the Valley, Las Vegas MSA or Clark County. Historical population statistics are largely derived from U.S. Census, state, and city estimates. Projected population estimates for the North Las Vegas were estimated utilizing NDS' Pop Facts Demographic Trend Reports and historical growth trends.

There are a number of income measurements and forecasts for Clark County. Population and employment projections also have associated estimates of real disposable income per capita. These, along with shorter-term household income projections, were found in the NDS reports Demographic Trends Report and Population Facts Report.

Our historical and projected data is based on Clark County Assessor's data, RTC traffic planning data and employment and population projections by CBER. We derived historical and projected demand, by the general land use categories, from the Assessor's database.

We reviewed data available from the Bureau of Economic Analysis, an agency of the U.S. Department of Commerce, to develop the historical and projectedperformance of the Real Gross Domestic Product (GDP) index. Statistics available from the Census Bureau's Current Population Survey were referenced to estimate historical median household income.

d) Absorption Projections

Our absorption projections are based on both quantitative and qualitative factors. The qualitative factors consider demographic influences in addition to the subject property's share of vacant, developable acres, its size, configuration, location and its desirability compared to other competitive MPCs in the Valley. Quantitatively, our analyses rely on the population and employment projections prepared by CBER. These projections are prepared using the REMI Input-Output Modeling System, and are generally accepted as the best available long-term growth estimates for Clark County.

Finally, our Absorption Analysis used parcel data from the Assessor's database and the Regional Transportation Commission's *Planning Variables Database, 1998* ("PVD-1998"). In the PVD-1998, parcels in the Assessor's database were assigned traffic analysis zone ("TAZ") numbers. TAZs are small geographic areas that segment the Valley into 1,140 zones. Using the Assessor's database, we were able to obtain key, current land use information (e.g., acres by land use, housing units and vacant lands). This enabled us to track how the Valley has evolved over the last several years. Using the PVD-1998 data, we were able to see how smaller areas (i.e., MPCs and North Las Vegas) have developed in comparison to one another and to the overall Valley.

FIGURE 1: SUBJECT PROPERTY MAP

Figure 2 PBS&J LAND USE PLAN

B. Market Study Findings

The following Market Study Findings are part one of a two-volume set of documents. The second volume is a Technical Notebook that has detailed background information on the Valley economy and its real estate markets, including associated tables, maps and graphs.

This report provides an overview of Chapters I through IV listed below. Full versions of these chapters can be found in the Technical Notebook. It also includes complete versions of Chapters V and VI, which cover the major recommendations of the report, relative to absorption and phasing, development and land sales strategies for the subject property**. The report's major conclusions and findings are in bold**.

- I. Locational Use Analysis
- II. Market Area Definition and Analysis
- III. Demand Analysis
- IV. Supply Analysis
- V. Absorption Analysis
- VI. Disposal Strategy-Village Typing & Market Segmentation Analysis

I. Locational Analysis

The Land Use Analysis primarily evaluates the subject property's location relative to the Valley and North Las Vegas. The purpose of this analysis is to document existing conditions and land use patterns, identify problem areas and discuss future options and choices. It also provides a comparison of the subject property to other major MPCs based on these factors as well as its overall desirability.

In order to provide an overall rating of the subject property, evaluate its probable success, and develop conclusions in relation to its competitiveness in the Valley, the following major focus areas were researched and analyzed:

- Major land uses and patterns.
- Relationship of the subject property to the major land use patterns in the Valley and North Las Vegas.
- Land use associations directly influencing the subject property's development.
- The subject property's linkages and the anticipated direction and rate of growth.
- Factors behind the historical origin and current location of growth as well as the primary economic contributors to growth in the Valley.
- The subject property's locational features and rating compared to other MPCs.

Historically, North Las Vegas has been perceived as relatively less desirable and less prestigious than some other parts of the Valley. This has been based mainly on the lack of a "true" MPC that offers a wide selection of single family housing and corresponding amenities. Instead, NLV is comprised of a mix of developments that are dispersed sporadically within its borders. This "mix" includes a large number of entry level and "first" stage move-up housing choices. Although there are areas of NLV that include custom home development, they are rarely considered part of its urban, central core. Moreover, the median incomes in North Las Vegas do not approach the levels of Summerlin, Green Valley and the overall Valley. It has also been less desirable due to its "perceived" distance from the Valley's population and employment centers.

Although these factors offer a challenge to the initial phases of the subject property's development, they allow a significant opportunity for it to be positioned as North Las Vegas' "premier" MPC. In fact, on a pure vacant acreage basis, the subject property would represent the second-largest MPC in the Valley after Summerlin.

MPCs have historically been well received and typically command higher land values. Considering the continued demand for well-designed MPCs in the Valley, it becomes evident that the subject property has a very high potential for success: if planned, developed, marketed, managed and sold in a professional manner.

Through our research, we found that the subject property has some major attributes that are inherent in its size and that will ultimately allow it to be competitive with the Valley's most successful MPCs, including:

- **Mix of Land Uses.** The size of the subject property and its physical features create a diversified and complementary set of land uses, along with a significant amount of open space including parks and golf courses.
- **Accessibility.** Its accessibility is anticipated to be excellent with the advent of the proposed northern portion of the Beltway that will add seven full interchanges within or adjacent to the subject property.
- **Overall Residential Unit Density/Acre**. The proposed 1.89 residential units per acre at the subject property is fairly low compared to competitive MPCs and is considered a desirable attribute.
- **Planned Public/Recreational Uses**. Many of these uses result from environmental and physical constraints relating to flood areas and fault scarps. Removing development from these areas enhances the amount of open space: this will benefit the subject property. Some 32%± of the subject property is allocated to public or open spaces. Only Summerlin has a higher documented share of such public/open space.

Our research indicates that the subject property's attributes created through proper planning outweigh its shortcomings in the initial stages of development.. Moreover, these shortcomings can be refined in the initial stages through effective marketing strategies that incorporate a broader cross-spectrum of consumers to drive sales activity and the residential densities detailed in the PBS&J report.

In fact, these shortcomings can actually be used to drive sales activity in the preliminary stages by incorporating residential land uses into the master plan that are marketable to consumers who are willing to drive the extra distance and not as impacted by proximity issues. Examples may include entry-level, active adult and retiree buyers who would create a population-base at the subject property and allow for a greater variety of housing choices in later development phases.

Most importantly, it will be proper planning, enhanced accessibility and proper positioning in the market that will drive the development and overall success of the subject property.

II. Market Area Definition and Analysis

This section defines generally accepted classifications for various land uses in the Valley. We categorized various land uses into their respective market segments (e.g., single family, multi-family, industrial, retail and office). These market segments are further defined through physical, geographic and/or political boundaries. For instance, the single family market overview provides a breakdown of entry-level residences concentrated in North Las Vegas.

An in-depth analysis of each market segment, based on development trends over a period of three to eight years in the Valley and North Las Vegas, is provided in this chapter, including total existing square footage (inventory), vacancy, new inventory, net absorption and average rental rates.

The overall health of each market segment in North Las Vegas is discussed and contrasted relative to the Valley, in the following paragraphs.

A. Single Family

To date, North Las Vegas has been most competitive and prominent regarding its availability of affordable entry-level and move-up housing. In fact, these two market segments, ranging in price from $116,000 to $139,000, comprise 95% of its total single-family detached market.

Recent statistics indicate that North Las Vegas is saturated with single family development projects. Although sales remain brisk, it is losing a slight amount of market share due to increased competition from the dominant South submarket (Green Valley area) and well-performing projects in the Northwest. This is occurring while the number of projects selling in North Las Vegas has increased by 15% over the last quarter.

The lack of large and diversified MPCs has historically limited the ability of North Las Vegas to attract up-scale development. MPCs have historically been in high demand in other parts of the Valley, commanding 56% of the annual new home sales market in 1998.

However, our research indicates that the subject property has sufficient land capacity to attract these up-scale market segments, but will require considerable marketing and major amenities to attract them.

B. Multi-Family

Approximately 60% of the multi-family market in North Las Vegas is comprised of four and eight-plex units that are older and contain basically no amenities. Although, most of the early and mid–1990s were characterized by minimal growth in this area, a resurgence of multi-family development occurred in the years of 1997 and 1999.

Currently, Las Vegas Valley and North Las Vegas rental rates average $679 and $690, respectively, with low vacancies in each market. There are no notable trends that differentiate North Las Vegas from the Valley relative to absorption and rental rate increases. In fact, average occupancy rates have remained steady at over 90% in both markets for the last five years.

Current trends have indicated that developments that offer recreational amenities and affordable rents have experienced continued viability within this market segment. Overall, these types of units are more desirable and tend to rent more quickly at relatively higher rates than less amenitized projects.

C. Industrial

Industrial market areas within North Las Vegas are clearly defined and are concentrated along I-15, the Union Pacific Railroad line (roughly parallel to I-15), and Losee Road between I-15 and the railroad.

The average lease price of large box, multi-tenant space below 10,000 square feet increased from an average rate of $.47 per square foot per month at the end of 1997 to $ .53 per square foot per month in Quarter 2, 1999. Although rental rates in North Las Vegas follow overall Valley trends, ranging from $.44 to $.45, they appear to do so at a lower rate of increase.

There appears to be a softer market for larger divisible suites in the large box, multi-tenant rental category. In the Valley, these rental rates have risen from an average of $.40 per square foot per month in Quarter 4, 1997 to $.43 per square foot per month in Quarter 2, 1999. In the same period, North Las Vegas decreased from $.34 to $.32 per square foot per month. This appears to be influenced by the softness that is occurring in the adjacent Northeast submarket for this type of space. Many of the other submarkets appear to be insulated from these effects due to their distance from the Northeast.

Low vacancy rates reflect a relatively healthy submarket. Overall industrial vacancy in the Valley increased from 8.3% in Quarter 4, 1997 to 10.8% in Quarter 2, 1999. Conversely, North

Las Vegas decreased from 10.6% to 9.8% during this same period. This is explained by its below-average inventory increase since 1997. The overall Valley industrial inventory increased by 10.9% between Quarter 4, 1997 and Quarter 2, 1999, while the North Las Vegas inventory increased only 7.3%.
In summary, the outlook is positive for the subject submarket with rental rate growth returning once surrounding competitive markets achieve supply-demand balance.

D. Retail

The retail market coincides with the geographical boundaries of North Las Vegas. Boundaries of the retail submarket are similar to those of the industrial market area, differing slightly along the southeastern and southwestern borders.

Occupancy throughout the submarket is very healthy and has been for several years. The current overall vacancy is 4.1%. No retail submarket in the Valley reported vacancies over 8% as of Quarter 2, 1999. Vacancy in the subject submarket was reported at .86% in Quarter 2, 1999. This submarket has maintained competitive occupancy levels and is considered to be one of the prime demand areas for retail growth in the Valley. The market has responded by making the subject area a location with the second most planned retail construction in the Valley, behind the West submarket.

Average lease rates for the Valley were $1.28 at the end of Quarter 4, 1997. In Quarter 2, 1999, the rate declined to $1.21. Rental growth is occurring in the newer project segment, whereas the older project segment has had flat or declining rental rates. This explains the overall rental rate decrease in the larger market.

Average triple net rental rates have grown substantially over the last 18 months in North Las Vegas. Rates have increased from $1.03 in Quarter 4, 1997 to $1.12 in Quarter 4, 1999, a growth rate of 5.8% per year on an annualized basis.

The retail markets in the Valley and North Las Vegas are considered healthy. Newly constructed retail space near Craig Road and Martin Luther King Junior Boulevard has been well received. With continued development of new homes in the immediate area, retail development opportunities will likely continue.

E. Office

The office market has expanded significantly over the past 10 years. The once-centralized market is now more geographically diverse, and includes clusters of suburban office development near or within several MPCs. Office market areas are historically “corridor-driven,” especially in suburban locations.

The subject’s submarket includes North Las Vegas and a portion of the Northeast / Sunrise Manor area. Historically, there has been very little development of office space within the confines of the subject submarket. Recent interest in commercial development and existing and future MPC areas may attract more suburban office space to outlying regions of the submarket in the near future.

Historically, office vacancies have been below 15% in the Valley. This is considered to be a stabilized vacancy rate for an office market. Between 1993 and 1996, a shortage of office space in the Valley resulted in vacancy rates that consistently ran below 10%. Estimates as of Quarter 2, 1999 indicate average overall office vacancy at 11.7%.

Rental rate growth has been low in the overall market, based on recent historical statistics. Average Full Service Gross ("FSG") lease rates from the Quarter 4, 1997 were reported to be $1.74 per square foot per month. FSG leases indicate that all expenses are the responsibility of the landlord as opposed to Triple Net ("NNN") leases where all expenses are the responsibility of the tenant. Current lease rates from the Quarter 2, 1999 indicate Full Service Gross (FSG) lease rate rentals of $1.78 per square foot per month.

North Las Vegas contains only three speculative buildings and is considered to be too small to make average rent determinations. Rent for those buildings that do lease in North Las Vegas are considered to be typical of Valley averages, with FSG equivalents of $1.45 to $1.85 per square foot per month.

This market appears balanced, with stable occupancy levels and slightly increasing rental rates. Vacancy in the submarket was zero between Quarter 4, 1997 and Quarter 2, 1999, due to the small amount of speculative rentable space and the small size of the submarket.

As North Las Vegas becomes the home of more Valley residents, demand for additional suburban office space is anticipated. Demand for office space, away from the urban core of North Las Vegas on Civic Center Drive and Lake Mead Boulevard, is expected to materialize in the near future.

It is our conclusion that with the introduction of a well-designed, MPC into North Las Vegas (i.e. the subject property), will increase demand for each of the market segments described above.. Once a minimum population-base is established, commercial land uses at the subject property should flourish.

III. Demand Analysis

The Demand Analysis provides an in-depth study of the factors that significantly influence demand for the Valley's various land use markets. These major determinants include employment, population and income levels. They are examined in this section within the context of the Valley, North Las Vegas and, in some cases, from a national perspective. Topics include:

- A survey of major employers, by base-industry, including their current and expected contribution to the local economy.
- Projected and expected changes in these base industries.

- Historical, current and projected economic indicators that significantly influence demand, including employment, population growth and income.
- Gaming evaluated as the Valley's major employer and industry, including its current health, recent trends, political climate and potential competition.
- Description of units of demand along with their respective densities, by land use, including the single and multi-family, industrial, retail and office markets.
- Historical development trends, by land use, for the Valley and North Las Vegas as well as projected development for the Valley.
- National economic trends, including historical and projected gross domestic product and employment figures. National gaming policies and expansion and the cost of capital are also reviewed.

The Valley has experienced unprecedented growth since the mid-1980s. However, current projections indicate that the local economy cannot sustain its current pace over the next 20 to 30 years considering infrastructure and environmental constraints.. Many sources project that after 2007, the Valley's major growth concerns will be air quality and supplying enough water to the increasedpopulation. Moreover, the projected slow down in the gaming industry could prove problematic.

A. Population

It should be noted that as early as 1990, employment and population projections were based on the assumption that the economy could not continue expanding at current levels over the long-term. In retrospect, these assumptions were too conservative.. While slower growth levels are anticipated, long-term projections are still more than double the forecasted national rate of (less than) 1% per year.The short-term growth figures correspond with the continued growth of the gaming industry and infrastructure expansion. The growth projected by NDS for North Las Vegas over the short-term (1998-2003) is 4.4%, compounded annually. However, based on the city's historical rate of growth, we believe that its growth could reach as high as 8.5% per year. This compares with a short-term Valley projection of 4.9%, compounded annually.

The above projections for North Las Vegas do not incorporate any considerable growth from the subject property**. The development of the subject property could significantly increase North Las Vegas population and employment growth rates.**

The growth of the Valley is largely impacted by the popularity of MPCs. Should the subject property's master plan prove successful, long-term growth figures could surpass those of the Valley, due to the life cycles and respective sizes of other competitive MPCs. In fact, the development of the subject property could significantly impact the growth North Las Vegas' population, as Summerlin has continually done for the City of Las Vegas over the past eight years.

B. Income Levels

Current and projected data for North Las Vegas indicates lower than average median and average household incomes relative to the Valley. However, the rate of projected income growth for the city is higher than for the Valley over the next five years.

How employment and population growth translate into higher incomes is particularly important to the subject property, because income is a variable that determines the types of residential housing in an area. Income also influences the type of retail space that will be demanded at a given location. Areas of higher household income are typically associated with higher-priced and amenity-oriented housing. Higher income areas also demand higher levels of retail space relative to lower income areas.

C. Employment

Employment growth rates in Clark County have exceeded 2% throughout the 1990s, even during the recession of 1991 to 1992. The Valley and North Las Vegas populations are supported mainly by employment in the service industry. However, according to our research, North Las Vegas is less dependent on this sector than the overall Valley.

North Las Vegas has higher ratios than the Valley in the wholesale trade and manufacturing sectors. This is primarily due to the city's proximity to I-15, Union Pacific Railroad, Nellis and the North Las Vegas Airport which attract a significant industrial workforce.

According to the 1993 North Las Vegas Master Plan, approximately 14% of the city's developable acres were zoned or master-planned for industrial uses. This is considered to be a much higher than average level of industrial zoning, and is also much higher than the 6%-share illustrated in the PBS&J master plan. As a result, a lower level of employment in this sector derived at the subject property is expected, when it is built out.

Growth in manufacturing employment in the Valley is projected to be higher than national trends, as evidenced by the growing share of local manufacturing employment relative to total U.S. manufacturing.

The government and service sectors have the highest projected growth among all industries. Employment growth in this sector is a function of overall population growth and the expanded governmental services that accompany it.

D. Gaming

A brief analysis of the gaming industry's health is an additional requisite for any economic study of the Valley. Gaming is the Valley's key industry, and with this, the local economy is dependent on its continued health. Gaming industry trends and health are key to the continued economic viability of the Valley and North Las Vegas and unforeseeable events in this industry, could have significant positive or negative repercussions on the local economy.

Sustained long-term gaming expansion in the Valley, at recent rates, appears unlikely due to the proliferation of gaming into other regions of the United States as well as internationally. However, the gaming industry should continue to expand in the near term.

North Las Vegas has a relatively small inventory of existing casino-hotels. This is largely a function of its smaller share of population and lower per capita income. The Texas Hotel Casino and the Fiesta Hotel Casino, clustered at the intersection of Rancho Drive and Lake Mead Boulevard, have minimal room counts and cater to local gamblers. Non-room casinos situated along Las Vegas Boulevard North include Jerry's Nugget and the Silver Nugget. While these latter two casino properties influence the city’s economy, they are technically located outside of North Las Vegas.

In summary, these major market factors relate directly to the demand for various types of land uses in North Las Vegas and the Valley. Obviously, continued economic growth is vital to the demand for the full range of land uses overall.

IV. Supply Analysis

This chapter provides an in-depth analysis of land inventories and cycles, by market segment, in North Las Vegas and the Valley. Based on historical trends and growth rates of land supply, as well as developments that are planned and under construction, absorption rates are analyzed.

The most salient land uses are further refined. For instance, single family would include entry-level, move-up, upgrade, executive and luxury segments that are basically defined by price per square foot and average density levels.

Vacancy, sales, absorption and current growth levels of each product type were then assessed to estimate supply levels. This resulted in the further classification of land uses as either “undersupplied”, “oversupplied” or “in balance”.

In order to evaluate the supply side of the various real estate markets, the following factors were evaluated:

- The historical and current supply inventory, by land use.
- Distribution levels and percentage breakdowns of product types, within each land use.
- Factors behind historical and current supply trends by land use.
- Available inventory, current vacancy and projected absorption period, by land use.
- Factors affecting future supply levels, including future BLM auctions, a potential slowing economy, the National Gaming Impact Study Commission, new gaming projects and fixed guideway development.
- Projections and absorption of short-term supply, based on “under construction” and “planned” developments.

- Potential constraints to the subject property's development, including completion of the Beltway in a timely manner, adequate infrastructure and conflicting political policies on the horizon.

A. Reasons for Historical Supply Growth

As mentioned previously, the strong levels of historical employment, population and income growth in the Valley are largely due to the growth of the gaming industry. The ability of Las Vegas to support new hotel rooms, casino space and convention space has contributed to the significant level of real estate development. Growth in population, households, employment and income has spurred the growth in demand for all land uses. Correspondingly, increased demand for the various land uses has resulted in new supply being created.

B. Time Required to Reach Stabilized Occupancy

Based on the supply data, we projected the number of years required to absorb known under-construction and planned acres, by land use. However, we did not estimate any additional time required to reach stabilized occupancy for any land uses that are currently oversupplied. Likewise, we did not estimate any reductions in time for land uses that are presently undersupplied.

1. Single Family Market

The single family market is thriving throughout the Valley, enjoying high annual sales volumes. In fact, there are indications that 1999 will be a record-breaking year with total sales exceeding 1998 figures by 11%. There are also an abundance of under construction and planned projects. There are currently 70,337 units under construction, which represent approximately three years of supply, assuming that 1999's projected new sales of 22,500 units are realized and new sales average a 4% compounded increase per year. An additional 4,757 acres were classified, as under construction, yet had no associated unit estimates. Assuming a density of five units per acre, another 23,785 units are represented by these projects. After adjustments are made, it appears that there is nearly four years of supply under-construction throughout the Valley.

Projections also indicate that there are additional 41,978± units in the planning stages of development. A percentage of these projects are ultimately re-worked, delayed or scrapped. A density of five units per acre applied to the 1,252± acres without specific unit counts suggests additional 6,261 units that may enter the market. This raises the planned number of single-family units to 48,239. If all planned units were built, this would represent just under a two-year supply.

Total under construction and planned units, after adjustments, equal 142,363 units. This represents a five to six-year supply. We would anticipate that market balance would be maintained if 15% to 20% of these units re added in any given year.

North Las Vegas

During the past five years, the North Las Vegas (North Central submarket) single-family market has experienced new home sales in the range of 4,000 to 5,000 units, annually. This level is expected to continue through 1999.

There are currently 13,917± units under construction that represent approximately two to three years of supply, assuming an estimated 5,000 new home sales in North Las Vegas, and sales increasing by 4% each year. Again, like the Valley, the short-term supply data includes 733 acres classified as under construction without their corresponding number of units being listed. Assuming a density of five units per acre at these projects, would result in an additional 3,664± units, increasing the total to 17,581± units under construction. After this adjustment, it appears that a three to three and one-half years of supply is under-construction.

Planned supply estimates suggest an additional 16,760± units. Applying a density of five units per acre to the 329± acres that did not have unit estimates suggests an additional 1,644± planned units. **This raises the planned number of single-family units to 18,404± representing a three-year supply of planned construction in North Las Vegas**.

Total units supplied (under construction and planned), after adjustments, equal 35,986±. **This represents a six-year supply of single-family units in North Las Vegas.** Market balance will be maintained if 15% to 20% of these units are added to the market annually over the next six years.

North Las Vegas is a very active single family market and is the third largest of the five major single family markets.. It has only a slightly smaller share than the adjacent Northwest market (dominated by Summerlin). **It is interesting to note that North Las Vegas has achieved a high level of new sales without a dominant MPC.** The only MPC of significant size, El Dorado, has less than 1,000 acres of remaining land. Potential development of the subject property could significantly increase the share of single family sales occurring in North Las Vegas.

In conclusion, North Las Vegas appears to be slightly over supplied relative to single family housing. The slightly over-supply is not problematic, and does not materially change our six-year projections to absorb under construction or planned single-family units in the city.

2. Multi-Family

The supply cycle dynamics for the multi-family market are mixed. The Valley and many of its submarkets have witnessed an increased supply of multi-family units at higher levels than they are being demanded. However, the market is relatively balanced and slight rental increases have continued to occur.

The resurgence in this sector in the last three years has been mainly in amenity-oriented multi-family developments. These projects are oversupplied at the present time and the development of affordable multi-family housing is needed. The following paragraphs discuss the multi-family market in terms of acreage and planned units, by status (i.e. planned or under construction).

In the multi-family category, it is important to recognize that projects classified as under-construction are typically at the stage where units are being rented or are very close to being rented. However, multi-phased projects do occur, and these projects may rent over several years. Thus, not all under-construction projects will be built within the same year.

The 13,492 units under construction represent approximately two years of supply, assuming 1999's projected absorption of 6,000± units and absorption increases at a 4% compounded annual rate. This does not include an additional unclassified 13± acres at a 17.3 unit per acre density, considering it is relatively insignificant.

Planned projects are those that are under resolution for zoning or have been zoned. A significant percentage of planned projects are re-worked, delayed or scrapped, and it is unlikely that the full number of units represented by planned projects will be developed in the near-term (within five or six years). **Supply estimates suggest that 30,135± units are planned and represent slightly more than a four-year supply.**

Total multi-family units supplied (under construction and planned) after adjustments equate to 43,627±, representing approximately a six-year supply. We anticipate that no more than 15% to 20% of these units can be added in any given year for the market to remain in balance.

North Las Vegas

North Las Vegas appears to have a significant level of multi-family development occurring within its boundaries. The planned and under construction supply is higher currently than it has been at any time in the past. In fact, historically, North Las Vegas has suffered from a scarcity of new multi-family construction.

There are 816± units currently classified as under construction that are estimated to represent approximately a two-year supply, depending on actual 1999 absorption in North Las Vegas. North Las Vegas is considered capable of generating absorption from 300 to 500 units per year in the near-term, based on historical and projected demand trends.

Supply estimates suggest an additional 3,763± multi-family units are "planned" for development. Further, a density of 17.3± units per acre applied to the 59.8± acres that did not have unit estimates creates an additional 1,035 planned units. This raises the number of planned units to 4,798. This represents slightly more than a nine-year supply, considering these units may come on-line after the "under-construction" units are built.

Total units under construction and planned total 5,614 units and are estimated to represent an 11-year supply of multi-family units, given current absorption trends. Absorption in 1997 was the highest on record for North Las Vegas during the 1990s. However, 1998 absorption was a meager 25 units, according to figures by the Clark County Comprehensive Planning Department. Given the number of present under-construction units and absorption trends, we anticipate a return to absorption levels near the 1997 record during the next several years.

The ability of the market to shift towards higher levels of multi-family demand and supply in the long-term depend on the zoning or master-planning of more multi-family sites in North Las Vegas. The existing and master-planned zoning allocate only a small portion of land for multi-family zoning. Without, re-zoning of parcels to insure the availability of an adequate number of multi-family sites, it is likely that the supply will be inadequate to fulfill the corresponding demand.

3. Industrial

Supply increases in the Valley from 1996to 1998 surpassed demand. This increased vacancy rates substantially and has ultimately created an oversupplied industrial market.
The following analysis illustrates total industrial inventory in North Las Vegas in terms of acreage and planned square footage by status (i.e., planned or under construction).

North Las Vegas

North Las Vegas is the largest industrial submarket in the Valley. However, inventory additions in 1996 and 1997 created vacancy problems.. Although there was an actual decrease in new project additions in 1998 and 1999, North Las Vegas has only recently begun to recover from this high vacancy rate.

Lower inventory additions are required for North Las Vegas to move towards balance. However, current indications of under construction space in North Las Vegas are 681,952± square feet, with planned space of an additional 699,900± square feet. These space additions are unprecedented, and are not likely to be absorbed quickly. If all of the planned space currently identified is built, this will most likely maintain a high level of oversupply and will push up vacancies even further**.**

The planned and under construction development of 1,380,952± square feet shown by Restrepo Consulting Group represents about a three to four-year supply of industrial space.Conversely, more speculative Regis estimates indicate that there are 1,809,752± square feet planned and under constructions which would represent a four to five-year supply of under construction and planned industrial space. **Considering current high inventories of available industrial space in addition to the projects that are planned and under construction, a five to six year supply is represented.**

In summary, the North Las Vegas industrial market is <u>oversupplied</u>. Moreover, current levels of under construction and planned space do not appear to be moving the submarket towards equilibrium.

4. Retail

The Valley's retail market has shown the most development restraint of all the commercial markets (industrial, office, and retail) during the latest growth cycle. In fact, new inventory additions have lagged absorption by significant margins in the last five years.

Many proposed projects are scheduled to come on-line in the next two years, with high demand being projected for most new retail project locations. **This level of absorption indicates a slightly under-supplied market.**

The following analysis illustrates total retail inventory in terms of acreage and planned units by status (i.e. planned or under construction).

At 4,200,000± square feet of new inventory growth per year and assuming a growth rate of 4%, the planned and under construction space supply of 4,281,181 shown by Restrepo/Lee represents about a one-year supply of retail projects.

The longer-term Regis data suggests that a five to six-year supply of under construction and planned retail space exists. This estimate is based on the 26,462,769± square feet that is identified in the Regis database.

North Las Vegas

North Las Vegas is viewed as an even stronger retail market than the Valley. Inventory absorption has been almost immediate due to the lack of available retail space in this submarket. **Current vacancies below 1% are highly indicative of a strongly under-supplied market in North Las Vegas.**

Retail space inventory is estimated at 1,791,448 square feet. The indicated supply shortage is 70,398± square feet. This is not significant enough to materially change our estimated supply and the corresponding absorption period. Given the rate of new residential land development in the area, there is strong immediate demand for retail space.

At the projected levels of supply and demand, the planned and under construction space of 814,850± square feet per year is anticipated to represent between one and two years of supply. The more speculative Regis data suggests a six to seven-year supply of planned retail space, based on a more speculative 2,515,689± square feet.

5. Office

The Valley's office market experienced very high levels of supply in 1997 and 1998. Although development slowed in the first half of 1999, a significant amount of new product is on the horizon for the second half of 1999.

Current under construction space is tracked at 1,325,252± square feet with an additional 1,663,120± planned for construction. Anticipated population and household growth during the next year is not expected to be able to support this level of construction. **Therefore, this market sector is considered slightly oversupplied.**

The following analysis illustrates total inventory in terms of acreage and planned units by status (i.e. planned or under construction).

At 1.5 million square feet of new inventory growth per year and assuming an annual growth rate of 4%, the planned and under construction space supply of 3,008,372 represents about a two-year supply of office space.

The Regis data suggests a 2 ¼ to 2 ½-year supply of under construction and/or planned office space. This estimate is based on the 3,677,151± square feet identified by Regis.
North Las Vegas

As mentioned previously, there is very little traditional office development in North Las Vegas. This could represent a positive for the subject property. Normally, a near zero vacancy would indicate a significant amount of pent-up demand, however the lack of new space entering the market may clearly indicate that there is a lack of market depth in North Las Vegas.

The Valley's office market is very "corridor-centric" or "district-centric." As of yet, there are no well-defined corridors of professional office development in North Las Vegas. This lack of depth makes the market a "pioneering" area, in terms of office development. As a result, no new inventory has been constructed year-to-date, and there is no under-construction or planned space. **Overall, North Las Vegas appears to be under-supplied in this segment.**

It is clear that North Las Vegas has a fairly limited office market. As a result, it is difficult to project supply conditions with any degree of certainty. Planning issues and the lack of an office corridor contribute to the problems of attracting office space to the area. It is also likely that other markets have captured a majority of the office demand derived in North Las Vegas.

Our review of the more speculative Regis data shows a limited amount of planned and under construction office development. The majority of this space is a project classified as "under construction" that does not appear to be undergoing active construction at the present time. Technically, this property is just west of North Las Vegas, but is located within the Restrepo/Lee Area 09 that has some slight overlap outside of the North Las Vegas boundaries. The project is the 486,322± square foot Centennial 95 Office Towers in the City of Las Vegas' Town Center master planned area. It is considered highly speculative due to sparse development in the area and the fact that it is planned as a 10-story project. The development is considered to have a low probability of development in the immediate term (within 5 years).

At the present time, the only deterrent to office growth is the absence of a strong development cluster or corridor in North Las Vegas as well as a lack of thriving population and employment centers. Also, North Las Vegas zoning designates a very limited area for office space and most of the areas zoned or planned for office projects are essentially industrial districts.

A project like the subject property, with a master plan, and an area devoted to office uses could invigorate the market and create significant demand potential. However, at the present time, we see little impetus behind any immediate and significant office development in North Las Vegas. Most of the areas designated for research and business park development appear to have more potential for industrial uses.

C. Factors Affecting Supply

There are some potential events that will affect supply growth at the subject property. At the current time, an actual supply constraint appears remote but nonetheless possible. A short list of major potential supply concerns is discussed below.

1. Completion of Beltway in a Timely Manner

The Las Vegas Beltway is continuing on schedule and does not appear to show any signs of slowing down. A 1% motor vehicle privilege tax and a development fee provide funding for the Las Vegas Beltway. The new development fee contributes approximately $500 per single-family dwelling and about $.50 per square foot for commercial space. Recently, a ground-breaking for the Las Vegas Beltway project, near the subject property, at U.S. 95 and Centennial Parkway was held. This is a fairly advanced phase of the beltway that is not scheduled for completion until 2001. As such, it appears that the schedule is being maintained and this project has all indications of being completed on schedule.

2. Provision of Adequate Infrastructure

As previously indicated, the most pressing infrastructure concern is the provision of an adequate water resource and delivery system.

Water is supplied to the Valley from several sources. Underground facilities contribute approximately 15% of the water to Southern Nevada, and the Colorado River is also a major water source. The Las Vegas Valley Water District redistributes the water to Clark County and the city of Las Vegas. North Las Vegas, Henderson, and Boulder City have their own water distribution systems. There is a concern that by the year 2007, additional water resources may be needed above those resources that presently supply the Valley.

The Southern Nevada Water Authority (“SNWA” or “Authority”) and its member agencies currently meet their water demands with Colorado River water, groundwater and treated wastewater (also called "reuse" or "reclaimed water"), with 85 % of the demands currently met by Colorado River water.

The Authority should be able to meet projected water demands to about the year 2025, with responsible conservation and full utilization of the Authority's existing water resources, including unused lower Colorado River division states' Colorado River apportionments. Water demands can be met from now until approximately 2007 by continuing its conservation efforts, by fully utilizing the Authority's existing long-term water supplies and by utilizing Nevada (non-SNWA) unused Colorado River apportionments and the Valley’s shallow aquifer.

To meet water demands beyond 2007, the Authority intends to utilize its water in the Southern Nevada Groundwater Bank and the Arizona Demonstration Project. The Authority also intends to exercise its 1992 contractual right to a portion of any unused apportionments and surplus flows of the lower Colorado River. However, these are only interim supplies, and there are many uncertainties associated with their availability. Therefore, the Authority must continue to aggressively pursue long-term resources.

To meet water demands beyond the year 2025, the Authority has a number of future resource possibilities: "Wheeling" of the Virgin and/or Muddy rivers, Colorado River water banked in the Southern Nevada Groundwater Bank or the Arizona Groundwater Bank, managed surpluses of Colorado River water, Colorado River transfers and marketing, construction of a Virgin River pipeline or construction of the Cooperative Water Project (CWP) to bring groundwater from Nevada's southeastern counties.

To meet its immediate facility needs, the Authority is expanding its existing Colorado River facilities. To meet its longer-term resource needs, it is focusing its efforts on acquiring additional Colorado River water, most of which would be delivered through existing facility corridors, with the hope that construction of a Virgin River pipeline or a CWP will not be necessary. If additional Colorado River water does not materialize, however, the Authority must pursue other resources, to ensure a long-term, reliable water supply for the community.

3. Public Policies

The most visible public policy potentially impacting the subject property is the proposal for a growth boundary around the Valley. Generally, public groups argue that it is more expensive to provide infrastructure to outlying areas. They also point out that outlying areas are more prone to environmental impacts than in-fill areas. State and local leaders have been discussing this problem often referred to as “urban sprawl”. State Senator Dina Titus actually introduced legislation that would implement a development ring around the Valley. Other city and county governments have considered promoting in-fill development in addition to suburban development.

Legislation restricting outlying development will be hotly contested by the real estate community and is considered to have a fairly remote likelihood of occurring. However, the fact that legislation is being introduced to control “urban sprawl” and it is recognized as a problem suggests that attention to this subject is being paid.

V. Absorption Analysis

The Absorption Analysis takes into account the economic, demographic and market data contained in the previous four sections of this report. As a result, the projected share of residential and non-residential absorption allocated to the subject property is a function of both qualitative and quantitative factors. Further, it compares the proposed land use mix in the PBS&J report with development trends for those same land uses within the Valley.

This section essentially provides a projected absorption schedule of the subject property based on the PBS&J report and the population and employment estimates for the Valley. It answers questions such as:

1. Are the land use mixes contained in the PBS&J report in alignment with the Valley's historical, current and projected absorption rates?
2. Can this land use mix be sustained within the projected build-out of the subject property?

A. Subject Property Absorption

Based on our research, we believe that the subject property will be built-out in 21 to 23 years. It has several competitive advantages. Primary among these are its size, future accessibility (Las Vegas Beltway) and proximity to development patterns.
In the near term, however, the subject property faces infrastructure and accessibility constraints that may limit its capture of Valley growth during the next 5 to 8 years. These, and various other qualitative factors discussed in this report, support the observation that the subject property will initially capture a relatively small share of residential and non-residential absorption. This share will likely increase over time as the Valley evolves and better-located areas are absorbed. These constraints to development have been factored into the early years of the absorption period in our analysis. The advantages of the subject property are incrementally factored into the latter years of the analysis period.

As noted in earlier sections of this report, the REMI projections indicate slower overall population and employment growth for the Valley over time. Also notable in the REMI projections, is the decline in employment as a share of population. In 1998, Valley employment as a percentage of population was roughly 60%. By 2020, this percentage is estimated to drop to 45%. This is largely a function of an aging population. These population and employment trends have also been factored into our analyses and are reflected in our absorption projections.

B. Land Use Mix

This Absorption Analysis assesses the total development activity, assuming a market-driven mix of land uses. In some cases, these land uses differ from those provided in the PBS&J report. In this section, we review the individual land use categories to identify where changes may be prudent.

1. Residential

The PBS&J report suggests that residential development occurs at the following levels within the master plan:

- Low-Density Residential: 2,005 acres
- Medium-Density Residential: 1,595 acres
- High-Density Residential: 360 acres
- **Total Residential Development: 3,960 acres**

Because we used the Assessor's database to perform the Absorption Analysis, and no average development densities were provided in the PBS&J report, it is difficult to test the significance of the master plan's land uses relative to existing and projected market conditions. However, from the information provided, it appears likely that the low-density category is representative of single family development, the high-density category represents multi-family development, and the medium density category is a mix of single family and multi-family projects. The following density ranges in the PBS&J report support this observation:

- Low-Density Residential: 2 to 4.5 units/acre
- Medium-Density Residential: 4.5 to 13 units/acre
- High-Density Residential: 13 to 18 units/acre

Medium-density residential is reported to include single family detached and attached homes as well as a variety of multi-family units, such as duplexes, townhouses and low-density apartments. High-density residential is reported to include multi-family development at the highest densities allowed by the city.

It would appear that the master plan may have a potential imbalance between multi-family and single family development. On average, single family development represents approximately 86% of the Valley's residential acreage; the other 14% is developed in multi-family uses. If it is assumed that all of the master plan's low-density residential development is single family and all of the high-density residential development is multi-family, 87% of the medium density development would need to be built out in single family uses to maintain the Valley's historical balance. This may be high given a density range of 4.5 to 13 units per acre.

2. Commercial

The commercial category in the PBS&J report includes neighborhood, community and regional commercial as well as resort gaming uses. They are broken down as follows:

- Neighborhood Commercial 30 acres
- Community Commercial 100 acres
- Regional Commercial 550 acres
- Resort Gaming 95 acres
- **Total Commercial 775 acres**

In total, the amount of commercial square footage appears to be consistent with supportable levels of demand. Existing Valley conditions suggest that commercial development accounts for just over 12% of all development. In the master plan they account for 10%; well within acceptable ranges.

In general, regional commercial developments are large-scale projects servicing entire cities. A common example of regional retail development would be a mall (the master plan's 550 regional commercial acres would be sufficient space to construct roughly six regional malls). PBS&J did note in their definition of regional commercial space that it, "generally varies widely in use and intensity and often include many uses found in community commercial." Again, the overlap of the definitions makes a comparison difficult. It is important to note, however, that such a large amount of regional commercial space would likely extend the subject property's absorption period for a considerable number of years.

The master plan's levels of neighborhood and community commercial appear slightly low, and would likely benefit from a reallocation of acreage from the regional commercial category. The level of resort/gaming uses appears to be in-line with market conditions. Currently resort/gaming uses account for 3.5% of the Valley total development. It accounts for only 1% of development in the master plan. This reflects its residential orientation and distance from the Valley's gaming districts.

3. Industrial/Office Business Park

The PBS&J report includes two industrial classifications, office/business park and light industrial. The acreage is broken out as follows:

- Office/Business Park 445 acres
- Light Industrial 30 acres
- **Total Industrial 475 acres**

In total, we believe that the office/industrial acreage appears consistent with the Valley's overall development patterns. Office/industrial development accounts for roughly 7.2% and 13.3% of the Valley's and the city's developed acreage, respectively. It represents 6% of the master plan's acreage.

Traditional office space (Class A, B and C) accounts for 2,400 of the Valley's 91,000 developed acres, or approximately 2.6%. Traditional light industrial type uses, including warehouse, distribution, light manufacturing and flex space account for 4,000 acres, or 4.4%, of the Valley's developed land. These are the types of employment-generating uses that we would expect to materialize at the subject property.

Again, the overlap of land use definitions makes comparisons to existing and projected market conditions challenging. For instance, the office/business park and the industrial designations include a combination of office and industrial uses. The light industrial category also includes retail and restaurant uses. These uses would appear inconsistent within this category.

We would recommend some consideration be given to the actual mix of uses within the subject property. A land use mix imbalance could significantly extend the absorption period.

C. Land Uses Categories used in the Absorption Analysis

As discussed in the previous section, the land use categories provided in the PBS&J report and those used by the Clark County Assessor could not easily be matched. For example, the Clark County Assessor segments residential units into single family and multi-family (i.e., from duplexes to high-rise apartment complexes) categories.

The PBS&J report segments residential development by density (e.g., low, medium and high-density). The density categories (specifically the medium density) include multi-family and single family components, making a clear comparison between the two land uses somewhat difficult. Our Absorption Analysis grouped the PBS&J report's specific land uses into their general categories for the purposes of projecting residential and non-residential development at the subject property through buildout. These categories are:

- Residential – Low, medium and high density residential.
- Office/Industrial – Office/business park, light industrial, heavy industrial, flex space and warehouse developments.
- Commercial –Neighborhood, community and regional retail and resort/gaming commercial.
- Other – Public and semi-public uses as well as open space.

D. Projected Absorption Schedule: The Subject Property

As previously discussed, we believe that the subject property will buildout in 21 to 23 years, based on certain competitive advantages that the subject property has. **It should be noted that under reasonable, but slightly more aggressive assumptions, the subject property could be absorbed in 17 to 19 years.**

In 1998, the Clark County Assessor reported that the developed areas in North Las Vegas covered approximately 7,420 acres. For 1998, the U.S. Census Bureau estimated that the area's total population was approximately 99,000 people. This suggests that there was approximately 75 acres developed per 1,000 residents. By comparison, the Valley-wide developed total was 92,000 acres with a population of 1.14 million, or 80.5 acres per 1,000 residents.

At buildout, the subject property is planned to have a total of 3,960 acres of residential development. The average overall residential development density in the Valley is approximately 7.6 dwelling units per acre and the average number of persons per household is 2.7 . Using this ratio, the population required to support the residential portions of the subject property would be approximately 78,300 at buildout in 2024. This represents 79% of the city's 1998 population.

The Valley's population is anticipated to reach 2.2 million by 2024. The subject property's ultimate population represents 8.9% of the Valley's projected population growth. An increased capture of the Valley's population growth is anticipated in the latter years of the subject property's development, as infrastructure and accessibility improve and initial phases of development create a population-base. Tables V-1 and V-2 show projected population and employment growth in the Valley and at the subject property between 2000 and 2024 (buildout).

Population and employment growth results in land use changes. People moving to an area generally require housing and employment. As noted previously, For every 1,000 persons moving to the Valley, there are approximately 80.5 developed acres. In 1998, North Las Vegas had 75.2 developed acres for every 1,000 persons. We believe that the development of the subject property will be more similar to county development patterns. Current development trends at other local MPCs, as well as recent development trends in North Las Vegas support this observation. Developed acres, by land use, per 1,000 residents are provided in Table V-3.

TABLE V-1: LAS VEGAS VALLEY & SUBJECT PROPERTY POPULATION ESTIMATES, FROM 2000 – 2024 (BUILDOUT)

Horizon Year	Las Vegas Valley	CAGR	Subject Property	Subject as a % of Valley	CAGR
2000	1,287,599	N/A	12	0.0%	N/A
2005	1,558,422	3.9%	5,475	0.4%	N/A
2010	1,780,709	2.7%	26,372	1.5%	36.9%
2015	1,943,918	1.8%	42,322	2.2%	9.9%
2020	2,069,144	1.3%	63,045	3.0%	8.3%
2024 (buildout)	2,156,320	1.0%	77,471	3.6%	5.3%

Sources: Restrepo Consulting Group, LLC and The UNLV Center for Business and Economic Research.

TABLE V-2: LAS VEGAS VALLEY & SUBJECT PROPERTY EMPLOYMENT ESTIMATES, FROM 2000 – 2024 (BUILDOUT)

Horizon Year	Las Vegas Valley	CAGR	Subject Property	Subject as % of Valley	CAGR
2000	760,036	N/A	14	0.0%	N/A
2005	831,784	1.8%	3,499	0.4%	N/A
2010	910,305	1.8%	13,337	1.5%	30.7%
2015	954,679	1.0%	21,353	2.2%	9.9%
2020	1,001,217	1.0%	31,339	3.1%	8.0%
2024 (buildout)	1,026,568	0.6%	37,889	3.7%	3.9%

Sources: Restrepo Consulting Group, LLC, the Clark County Regional Transportation Commission and The UNLV Center for Business and Economic Research.

TABLE V-3: CLARK COUNTY & NORTH LAS VEGAS DEVELOPED ACRES PER 1,000 RESIDENTS, 1998

Area	Residential	Office/ Industrial	Commercial	Other	Total
Clark County	49.07	5.76	9.99	15.64	**80.46**
% of Total	61%	7%	12%	19%	**100%**
North Las Vegas	41.21	10.01	8.05	15.90	**75.17**
% of Total	55%	13%	11%	21%	**100%**

Source: Restrepo Consulting Group, LLC, the Clark County Assessor's Office, and the Clark County Regional Transportation Commission.

Applying the population and employment growth estimates provided in Tables V-1 and V-2, we anticipate that the subject property will reach buildout by 2024. At that point, approximately 3,900 acres of residential space, 460 acres of office/business park, 800 acres of retail commercial space will have been absorbed. Table V-4 illustrates projected land absorption, by period, for the subject property between 2000 and 2024.

TABLE V-4: SUBJECT PROPERTY ACRE ABSORPTION, BY LAND USE, 2000 – 2024

Horizon Year	Residential	Office/ Industrial	Commercial	Other	Total
2000	12	0	0	9	21
2005	266	31	54	85	436
2010	1,145	134	233	365	1,878
2015	2,229	261	454	710	3,654
2020	3,212	377	654	1,024	5,266
2024 (Buildout)	3,896	457	793	1,242	6,388

Source: Restrepo Consulting Group, LLC, the Regional Transportation Commission, the UNLV Center for Business and Economic Research and the Clark County Assessor's Office.

Note: Buildout of the subject property is less than its 7,500 gross acres because it is net of the roads, easements, rail roads, detention basins, and other rights of way.

We believe that this level of absorption is both achievable and reasonable. Total average annual absorption at the subject property is estimated to be roughly 290 acres. Several other local MPCs (e.g., Summerlin, Silverado Ranch, and Del Webb 5000) have reported absorption rates above 300 acres per year. Summerlin, which is the most comparable MPC relative to size, has reported absorption above 800 acres per year. This growth is largely the result of the extremely favorable local economic conditions and nation-leading population growth over the last 10 years. This is not projected to continue during the study period.

It should also be noted that several of the MPCs that reported relatively high levels of absorption over the past 10 years used “village typing” to match product offerings and development timelines with existing and projected socioeconomic conditions. It is recommended that similar planning practices be used in developing the subject property to maximize absorption, marketability and profitability. A more detailed discussion of village typing and its application to the subject property is present in the next chapter.

VI. Subject Property Disposal Strategy-Village Typing & Market Segmentation

A. Methodology

The master plan was studied to assess its ability to optimize land values and absorption and its consistency with the Clark County economy. A widely accepted MPC development approach was employed to quantify the degree of consistency. This approach is increasingly being used to more effectively plan MPCs throughout the U.S. It began replacing traditional “land use-based” methodologies in the mid-1990s, because of their inherent inability to:

- produce sustainable market absorption rates;

- reduce the financial risks associated with large-scale land development; and
- protect property values over time.

Traditional land use based planning is characterized by broad land use allocations versus specific socioeconomic allocations. In traditional planning, residential land use allocations are delineated by density category (e.g., low, medium and high). Non-residential land use are also very broad (e.g., neighborhood commercial and community commercial). Conversely, the cutting edge private planning practices today are specifically aligned with a community's economy and demographic profile, both of which are always evolving.

The PBS&J master plan was studied to assess its land use mix relative to optimizing land values and absorption at the subject property, and its consistency with the Clark County economy. In conducting this analysis, the master plan was evaluated using state-of-the-art regional economic analyses as well as development planning practices specific to privately developed MPCs. This approach was used in an attempt to align the master plan with the Valley's economy. Several historical and projected Valley-wide variables were analyzed:

- Economic trends
- Development and land use patterns and trends
- Real estate market dynamics
- Master planned community programming and disposition practices
- Demographic trends

Our analysis indicates that the desire of the BLM to maximize revenues by minimizing the absorption period, and North Las Vegas to create a well-planned, fiscally-balanced development is enhanced by a process we call Village Typing and Market Segmentation ("village typing").

Therefore, it is our recommendation that village typing be considered by the BLM and North Las Vegas relative to the subject property. In addition, we find that the BLM's initially proposed disposal strategy, which recommended the sale of numerous and relatively small parcels, is inconsistent with local real estate market dynamics and state-of-the art real estate development practices.

The land use allocations found in the master plan are generally in alignment with Valley-wide allocations. The land use acreage allocations for the Valley and the master plan are as follows:

The Valley
60%, residential
28%, major streets, open space, schools, and amenities
12%, retail, commercial, and industrial

The Master Plan
52%, residential,

32%, major streets, open space, schools, and amenities, and
16%, retail, commercial and light industrial.

At the center of every methodology are a core paradigm and a set of guiding principles. The core paradigm behind village typing is the concept of "edge conditions." Edge conditions define the socioeconomic and demographic preferences of a community. The effective management of edge conditions allows a master developer, a city, a county or a region to:

- protect land values;
- manage the velocity of development;
- lower the degree of economic risk;
- enhance standard of living;
- protect quality of life; and
- reduce the public fiscal impacts of development.

Edge conditions deal with street and sidewalk design and the quantity and quality of landscaping in the median, between the curb and the wall and structures. Edge conditions also embrace the concepts of community entries, signage, open space, amenities and lighting. The over or under-specification of these factors can have a negative financial impact on a development and, subsequently, the community at large. This is why edge condition design, management and maintenance must be conducted in concert with the appropriate village type and limited to a certain parcel size.

Our experience working with master plan developers and our ongoing research indicate that the optimum village size is 500-700 gross acres, including public and semi-public lands. Accordingly, we recommend that the subject property be planned in 500 to 700-acre increments.

Village typing is market-driven and is based on econometric principals that incorporate multiple life style concepts to maximize absorption rates and planning flexibility, while lowering development risk. In the private master planning sector, it has proven to accelerate development timetables. For the public sector, it can reduce urban sprawl and leapfrog development, mitigate the public fiscal impact of development, enhance and protect property values and provide the community with the ability to grow at rates that enhance and protect the standard of living of residents. Additionally, it can be used to monitor long-term development revenues and costs, and it can align and balance the public land planning process with the local economy and life style preferences of residents.

Accordingly, village typing can create a win-win scenario for builders, developers, city planners, public officials, utility service providers, and most importantly, residents. The process provides flexibility and a viable alternative to traditional zoning or land use-based planning methodologies.

As noted above, village typing is based on the understanding that there are distinct villages, which range from rural to urban. Each village type contains a specific set of residential, non-residential and public land uses. Furthermore, each village has its own unique lifestyle and economic profile, which is supported by a matching land use allocation strategy and defining edge condition.

In multi-village developments, villages are linked and supported by a tiered median and edge-condition system that: protects property values, enhances absorption, has a pedestrian-friendly trail system, reduces traffic speeds and has a park system that is compatible with the various village types.

By creating 500 to 700-acre villages or development districts, with hard edges, and linked with socioeconomic-driven soft edges, a planning entity can match its non-residential, residential and public facility development strategies with economic and demographic patterns and trends. Coupled with effective residential and non-residential market management and community input, a “master planner” can alter the village land use mix in response to changes in community needs and desires.

The size of a village is critical to its fiscal performance. The concept of optimal village size is based on the principals of critical mass and financially supportable absorption windows. As with all systems, there is a size and velocity at which a system performs optimally, and a point at which the return on investment begins to diminish.

The 500 to 700-acre increments typically allow for the full breadth of residential products from entry level and apartments to executive homes, thereby accelerating absorption. For example, one 500 to 700-acre village supports one elementary school, four support one intermediate school, and seven support one high school. **At this size, a village can be developed and built-out in five to six years.** This creates a financially supportable and viable development scenario for investors, lenders, and utility and infrastructure providers. This will support the goals and desires of the BLM and North Las Vegas

By design, traditional land use planning fails to meet the majority of socioeconomic and demographic needs of the groups that make up the community. This is why it is constantly modified when it is used by municipalities to create their general plans (see Table VI-1).

The village types correspond to the seven stages that a community goes through in its evolution from rural to urban. The concept of village typing is based the study of the evolutionary life cycle of a typical city over 100 years. It was discovered that cities naturally evolve through seven stages on the path from being a rural community to an urban center. In mature urban areas, all seven village types typically coexist. Furthermore, it was observed that there are specific types or sets of residential and non-residential products that go into each village (see Table VI-1).

When all of a particular villages’ programming elements are present, the village flourishes; when they are not growth is inhibited. Additionally, the velocity of development and land values can be diminished if inappropriate land uses are programmed into a village. By identifying those stages and modeling their land use distributions, a land use matrix can be created that meets the needs of most socioeconomic and demographic groups.

B. Types of Villages

Specific edge conditions, residential and commercial products, design standards, signage standards, lifestyle preferences and demographics characterize each evolutionary stage or village type. All are characterized by their residential street and edge conditions. Table VI-1 at the end of this chapter delineates the land use allocation by village type. The seven stages and associated village types are:

1. Rural
2. Traditional Non-Amenity
3. Traditional Amenity
4. Luxury
5. Active Adult
6. Resort
7. Urban

Rural Village: The streets range from dirt to paved roads with no curb or lighting. The typical street section is 32 feet wide with a 20-foot paved road and unfinished or natural six-foot edges, which have a three-foot furrow. The typical wall is a four-foot split rail fence. The residential density ranges from less than one unit per acre to one unit per acre for ranch or farm-type land use to .25 to one unit per acre for neighborhood residential developments.

Of the 22 residential housing types that are typically seen, only nine are appropriate for a Rural Village. In the average non-ranch or non-farm-oriented Rural Village there will be about 250 homes. There is typically one elementary school per seven rural villages (3,500 to 4,900 acres), assuming it takes 1,800 units to support one such school. The village to school ratio varies depending on the degree of ranch or farm acreage. Typically, there are only 15 to 18 acres of non-residential and public uses per 500-700 acres or approximately three percent. The size of the downtown-park and maintained open space averages about 1% to 2% per 500-700 acres or from 5 to 15 acres.

The typical development costs for the developer of a metropolitan Rural Village range in urban areas is from $0.30 to $0.40 per square foot or $8,000,000 to $10,000,000 (1999 dollars).

Traditional Non-Amenity Village: The first indication that a city has reached the next stage of evolution is the appearance of subdivisions or production-oriented housing. The Traditional Non-Amenity Village is a collection of production home neighborhoods or subdivisions.

All the streets are paved and have curbs, sidewalks and street lighting. The typical street section width is set by the fire department. The planning and building departments usually set the sidewalk width and lighting standards. The wall is a five-foot fence or wall, abutting the sidewalk.

The overall residential density ranges from three to four units per acre. Of the 22 residential housing types, 13 are appropriate for Traditional Non-Amenity Villages. In the average Traditional Non-Amenity Village community, there will be approximately 2,000 homes. There is typically one elementary school per village and 6% to 8% of the land is allocated to non-residential products and public facilities. The quantity of dedicated parklands and maintained open space averages about 1% to 2% or from 5 to 15 acres.

The typical development costs for a Traditional Non-Amenity village range from $.50 to $.60 per foot or $13,000,000 to $16,000,000.

Traditional Amenity Village: for a community to support the next stage of evolution it must be growing at rates in excess of 750–1,000 residential units per year. Below this level it is very difficult for a traditional amenity-oriented village to be financially viable. The Traditional Amenity Village is a collection of production home neighborhoods around a primary amenity, such as a golf course, lake or park.

All the streets are paved and have curbs, sidewalks and street lighting. The typical wall along a primary arterial is a six-foot fence or wall abutting the sidewalk with four to six-foot “pop-outs” for trees approximately every 100 yards. On second tier streets there is 12 to 15-foot edge condition, which incorporates a greenbelt, trees and a trail system.

The overall residential density ranges from three to four units per acre. Of the 22 residential housing types, 13 are appropriate for Traditional Amenity Villages. In the average Traditional Amenity Village there will be approximately 2,000 homes. There is typically one elementary school per village. Six to 8% of the land is usually allocated to non-residential land uses and public facilities. The quantity of dedicated amenity and open space averages about 10% to 20% or from 50 to 140 acres.

The typical development costs for a Traditional Amenity Village range from $.70 to $.90 per foot or $18,000,000 to $24,000,000. Tables VI-1 and VI-2 define the land use allocations, by village type, and the residential market segmentation strategies for each village.

Luxury Village: The next stage of evolution occurs when the wealth of a community reaches a point at which enough affluent families desire to live in and support a country club or Luxury Village. The Luxury Village is a collection of custom, semi-custom and production-oriented neighborhoods in a high-security environment built around a major private amenity, such as a golf and tennis club.

All the streets are paved and have curbs, sidewalks on one side and custom street lighting. What emerges in the typical interior street section is a landscaped median. The typical street section width is less than all other village types, with the exception of rural villages. The primary reason for this is that the number of trips per day per household is significantly less in Luxury Villages than most other village types. The typical wall is six to 10 feet with a six to 15-foot landscape section between the wall and the curb or sidewalk. This planting area is usually heavily treed and grassed. On second tier streets, there is a 12 to 15-foot edge condition, which incorporates a greenbelt, trees and trail system.

The overall residential density ranges from one to 2.5 units per acre. Of the 22 residential housing types, only nine are appropriate for Luxury Villages. The number of households typically ranges from 600 to 1,200 per village. There are typically no schools in the village, since a majority of school age children typically attend private schools. Usually, no land is allocated to non-residential land uses and public facilities. The quantity of dedicated amenity and open space averages about 30% to 40% or anywhere from 150 to 280 acres.

The typical development costs, including amenities and open space development, for a Luxury Village ranges from $1.25 to $1.35 per foot or $33,000,000 to $35,000,000.

Active Adult Village: The Active Adult Village is a specialty village and is typically found in major metropolitan areas and resort areas.

This village is a collection of affordable production-type neighborhoods in a security-oriented environment, built around a host of major amenities. These include golf, tennis and swimming, community centers and trail systems. As with all village types, the Active Adult Village is characterized by its residential street and edge condition. All the streets are paved, with curbs and oversize sidewalks on each side, and a higher-level of street lighting. The typical street section is the same width as traditional villages, despite having the lowest level of trips per day per household. The primary reasons for this are safety and increased golf cart traffic. The typical wall is five feet, with a six to 15-foot landscape section between the wall and the curb or sidewalk. The level of planted material is moderate to low. On second tier streets there is eight to 10-foot edge condition that incorporates a greenbelt and trees.

The overall residential density ranges from four to five units per acre. Of the 22 residential housing types, only 10 are appropriate for Active Adult Villages. The number of households ranges from 2,400 to 3,500. There are no schools in this type of village. Less than 2% percent of the land is allocated to non-residential land uses and public facilities. The quantity of dedicated amenity and open space averages about 20% to 25% or from 100 to 175 acres.

The typical development costs, including amenities and open space development, for an Active Adult Village ranges from $1.25 to $1.35 per foot or $33,000,000 to $35,000,000.

Resort Village: The Resort Village is a specialty village and is typically found only in mature major metropolitan areas and resort areas. The Resort Village is a collection of custom, semi-custom, and production-oriented neighborhoods in a moderately secure environment. Resort Villages are built around a major semi-private or public amenity, such as a hotel, golf and tennis club or resort.

All the streets are paved, but may or may not have curbs or sidewalks. However, they all typically have custom-street lighting and a landscaped median. The typical street section width is equal to or greater than the average, as it usually supports a large median and oversized sidewalks in the retail areas. Although the local traffic levels or trips per day per household are low, the seasonal or weekend traffic is substantial. Interior residential walls in a urban-oriented Resort Village vary by product from none to 10 feet, with a 6 to 15-foot landscape section between the wall and the curb or sidewalk. This planting area is typically heavily treed and grassed. On second tier streets there is 12 to 15-foot edge condition, which incorporates a greenbelt, trees and trail system.

The overall residential density ranges from two to three units per acre. Of the 22 residential housing types, only 11 are appropriate for Resort Villages. The average number of households ranges from 800 to 1,200. Typically, there are no schools in the village. Twenty percent of the land is typically allocated to non-residential land uses and public facilities. The quantity of dedicated amenity and open space averages between 30% and 40% or anywhere from 150 to 280 acres. The typical development costs for a Resort Village range upward from $1.35 per foot. At $1.35 per foot, the development costs for the primary infrastructure and amenities would start at $35,000,000.

Urban Village: The final stage of village evolution occurs when a local population becomes large enough and a local economy becomes diversified enough to support high density, mixed-used employment centers. This describes the “green field” and redevelopment Urban Village. The principles of the green field-oriented village (and village typing in general) can be applied to redevelopment. This village is a collection of higher density residential neighborhoods built around a major employment center.

All the streets are paved and have curbs, oversize sidewalks on both sides, and custom street lighting. The typical street section width is significantly wider than all other village types. The proximate cause for this is the high-level of traffic due to density and job-related trips. While the Urban Village usually has no community wall there is a three to six-foot landscape section between the curb and sidewalk. This is typically planted with trees and grass. On second tier streets, in the lower density areas there is a 12 to 15-foot edge condition, which incorporates a greenbelt, trees and trail system.

The overall residential density ranges upward from five units per acre. Of the 22 residential housing types, 14 are considered appropriate for Urban Villages. Due to the lack of similarity between Urban Villages, the number of households varies widely. However, the number of elementary schools in Urban Villages remains the same at one per 2,500 households. Typically, more than 35% of the land is allocated to non-residential land uses and public facilities. The quantity of dedicated amenity and open space averages between 5% and 10% or anywhere from 25 to 70 acres. There is a unique aspect to the allocation of open space in successful Urban Villages. It is centralized, rather than decentralized. The only other village type that promotes the centralization of open space is the Rural Village.

Typically, development costs for a green field Urban Village, including amenities and open space range from $.80 to $1.00 per foot or $21,000,000 to $26,000,000.

A high quality village arterial road system is essential. The arterial system is composed of four tiers. The section of the upper tier street is larger than the average, and the system has more street types than typically is found in a municipality's mix of streets. Since one of the key factors in determining the stability of residential and non-residential property values is the quality of the arterial road system, the mix of inter-linking streets is as important to municipality as the mix of villages.

C. Market Segmentation

Market Segmentation is a socioeconomic and land use based "index" that is more detailed than those found in traditional land use-based planning indices (see Table VI-2). Land use-based planning indexes typically designate residential areas by density (e.g., low, medium, and high). Conversely, with Market Segmentation, there are presently 22 types of residential products that are classified into one of four categories, Single Family Detached ("SFD"), Single Family Attached ("SFA"), Custom Lots and Apartments. There are five SFD and SFA niches - Entry Level, Move-up, Upgrade, Executive and Luxury. The SFD segments are defined by the average lot size, square footage and sales price. The SFA segments are defined by density and average square footage and sales price. There are also seven types of custom lots - square footage/size, lot size mix and orientation define them. In addition, there are three classifications of apartments, "A", "B" and "C." Average square footage, community amenity level, security, and average rental rate define them.

In addition to the residential market segments, there are corresponding non-residential market segments and niches. In the traditional non-residential land use planning, there are two main categories, commercial and industrial. In village typing, there are three types - retail, commercial and industrial. In traditional planning, areas are designated by type (e.g., light versus heavy industrial or community versus neighborhood commercial). Whereas, in village typing, there is a matrix per segment and niche that is based on a community's stage of evolution (start from rural to urban), socioeconomic profile and size of population. For example, restaurants, as a sub-segment of retail can include up to five levels:

- Shopping center or in-line.
- "Fast food" restaurants, e.g. McDonalds, Taco Bell etc.
- Family, value-oriented, and theme based restaurants, e.g. Sizzler, International House of Pancakes etc.
- "White Tablecloth" restaurants, which are food or region type specific, e.g. Southwestern, Italian or French.
- "Fine Dining" establishments, which are typically denoted by their chef or entree.

The approach assumes that each village type has a specific set of "appropriate" residential and non-residential products. A non-compatible land use mix can have an adverse effect on the village's rate of absorption, land values, and could change the village's planned profile. Each residential and non-residential niche has a corresponding economic profile. Therefore, it can be aligned, or not, with the community's economy. Within every community, the actual market segment definitions vary (see Table VI-2).

The degree to which residential and non-residential segments and niches are aligned, by village type, to the local economy will dictate the degree to which absorption and land values will be maximized and urban sprawl mitigated. Conversely, the opposite is true. When residential and non-residential segments and niches conflict with their village type and socioeconomic conditions, the rate of absorption and land values will not be optimized. Therefore, by using villages types and market segments within those villages, the subject property can be optimally developed.

D. Phasing, Development & Land Sales Strategies

Traditional land planning methodologies typically dictate phasing, development and land sales ("PDLS") strategies. Therefore, the choice of planning methodologies is critical. Whereas traditional methodologies dictate a limited number of PDLS options, village typing creates a variety of options for the development of the subject property.

Traditional planning's PDLS typically call for a combination of bulk and 20 to 60-acre parceled land sales without integrated infrastructure development. Through village typing, several PDLS options for the subject property can be created. It will allow the phasing of the highest revenue yielding and fastest absorbing village types in the early years of development. The roles that the BLM can assume range from a parceled and long-term, build and hold developer, to a complete single builder/developer through build-out. Regardless of the strategy or blend of strategies, village typing offers the greatest degree of flexibility with the highest level of control in developing the subject property.

1. Phasing Strategies

Traditional phasing strategies are driven by their proximity to existing services and primary roads for development cost reasons. These are "edge-based" strategies that are based on initiating a real estate development from the property line or edge, inward toward the center. However, more progressive development practices are different. The development strategy of choice is to build a limited access road into the property and build outwards toward the edge, creating a "development island."

MPCs incorporate open areas for additional development activity by redirecting growth patterns. If the MPC is a traditional amenity-oriented project or even more upscale, and it does not protect its edge, it can be negatively impacted by adjacent unplanned competitive projects. Adjacent developments can have land costs that are 20% to 30% lower than that available in the MPC, while having equal access to the MPC's public amenities. In these instances, absorption rates in the MPC can be reduced.

This type of unplanned development is known as "parasite development." Parasite development is the development of lands adjacent to MPCs. In multi-village MPCs, parks, trail systems, etc.

are typically turned over to local governments once they have been completed. This, in turn, allows non-master planned area residents to have access to these facilities.

Because parasite developments do not have all of the costs associated with creating amenity-oriented MPCs, they can offer similar, but less expensive, residential and non-residential products, while their residents utilize the amenities offered in neighboring MPCs. The result for MPCs are extended absorption periods, reduced land values and increased financing-related developments costs. Accordingly, the village typing process can be enhanced creating a development island to protect land values.

2. Development Strategies

The key to a successful MPC development strategy for the subject property is two-fold. First, it lies in the ability of the strategy to reduce the majority, if not all, of the initial design and development debt within 12-18 months following the completion of the primary infrastructure.

As a point of reference, most major MPCs will sell one or two villages comprising 1,200-1,400 acres to pay for initial design and management-related expenses. It has been found that the most effective way to begin generating revenues to pay for design and management, and pay-off development loans, is through the application of village typing and the sale of bulk villages.

The second key to creating a successful development strategy for the subject property lies in maintaining control of the primary infrastructure, edge conditions and public amenities. This will protect property values. The use of a professional and qualified management and development company to develop the subject property can optimize land values and absorption rates. It will also keep the mix of villages in alignment with the Valley economy; thereby, reducing development risk.

The current multi-village development strategy of choice among large landowners around the country that are actively involved in master planning land, is to have three tiers of developers: a primary infrastructure, amenity and village developer; individual village developers; and builders within parceled villages. This strategy provides landowners with a built-in check and balance system that protects them from the historical problems associated with a single or small number of builders developing a large tract of land.

3. Land Sales Strategies

The second most critical component of the developing an MPC at the subject property, is its land sale strategy. Land sale strategies are driven by five variables: management, the degree to which land revenues are to be optimized, development time frame, market conditions and the quality of the community and its residential and non-residential components.

The first variable, management, deals with the degree to which the BLM wants to control what the subject property's finished residential and non-residential components will be.

The second variable, the optimizing of land sale revenues, is directly tied to the first variable. With professional and unvested management acting solely in the role of optimizing the financial performance of the subject property, within the established time frames, land sale revenues can be optimized. A blended strategy of village and parcel land sales can also be executed. Conversely, if the BLM needs or is desirous of disposing of the subject property while achieving a reasonable price for the subject property, then a bulk land sale strategy to several developers is appropriate. In this scenario, North Las Vegas can govern the quality of the subject property's development through its land use regulations and policies. **Cooperation between the BLM and North Las Vegas will be essential to meeting the goals of each entity.**

There will likely be four land revenue strategies available to the BLM. The first produces the least amount of revenue and fourth produces the most. The same can be said for risk. The first is a bulk or village-level land sale strategy. The second is a combination of village and parcel land sales. In this case, the BLM entitles the subject property and installs primary infrastructure and amenities, and markets the residential components. The third combines the second strategy with the BLM also building and leasing the non-residential components. In the fourth, the BLM installs all of the infrastructure and amenities, and building-out the residential and non-residential products.

The most likely strategy for the BLM will be to sell the subject property in bulk or in villages (strategy 1). The more the strategy is slanted towards bulk/village sales, the less control the BLM will have, depending on the selected disposition/sale approach. This is why proactive cooperation with North Las Vegas is critical. The more the strategy is slanted towards parcel sales, the more control the BLM will have.

The third variable is the development time frame. Variables one and two, the land use plan and its compatibility with the area economy dictate the development time frame. The more aligned the land use plan is with the socioeconomic of the area, the more rapidly it can be developed. Conversely, the opposite is also true. The more the land use plan is out of alignment with local market and economic forces, the slower it will be absorbed.

In addition, traditional master plans typically absorb land at a rate of 100 to 200 acres per year, where as village typing based master plans can absorb between 300 and 1,000 acres per year, according to our research on historical development trends the Valley over the last 10 years. **Based on the size of the subject property, we recommend that it be divided up into a maximum of 15 villages.**

The fourth variable is market conditions. The value of land and the structure of land sales are highly susceptible to local, regional and national economic conditions. In formulating a land sale strategy, the integrating long-term economic trends will be critical to the optimization of the subject parcel's land values and the timing of village development.

The final variable is the issue of the quality of the selected developers weighs heavily on the outcome as does the mix of the selected developers. Typically, the more the land sales process is based on selecting on price alone, the greater the likelihood of a lower quality developer(s) and the lower the quality of the project. **Conversely, the more the process is based on selecting qualified developers, the higher the caliber of developers and the higher the caliber of the finished project.** This will be capitalized into the land pricing for the subject property.

It is our understanding that both the BLM and North Las Vegas would like to have a high quality, multi-village MPC built at the subject property. They would also like to optimize land revenues and see the majority of the community developed within 20 years. **It is our recommendation that a disposal strategy be developed that matches a village-based master plan to optimize the subject property's absorption.**

E. Conclusion

The results of our study indicate that even when market forces drive a community or region to its next evolutionary stage, preceding village types continue to be demanded. A community's transformation from rural to urban does not mean that there is no longer a demand for rural villages with rural design standards. Each village type has a unique character, and it is in the community's best interest to have a mix of villages. This will ensure continued growth and a positive development climate.

Our experience working with a variety of MPCs in the Valley, the market research we conducted for this study, and our understanding of local socioeconomic patterns and trends suggest that a reasonable phasing plan for the subject property is as follows:

Phase 1 (2002-07)	**1-2 Residential Villages**
Phase 2 (2008-13)	**3-4 Residential Villages**
Phase 3 (2014-19)	**3-4 Residential & Urban Villages**
Phase 4 (2020-24)	**2-3 Residential & Urban Villages**

This phasing is consistent with the planned completion of the northern leg of the Las Vegas Beltway, which is scheduled for early-2002. The segment directly affecting the subject property extends from U.S. 95 west to Interstate 15. It should be noted that the extension of water and sewer services would be the responsibility of those developers that are successful bidders for the different village parcels.

Our research also finds that "protecting" each village type through edge-condition management can accelerate absorption, protect land values and eliminate zoning conflicts. According to our analyses, land use plans that are based on general design and development standards can stifle growth and promote leapfrog development that characterizes urban sprawl.

In its simplest form, the process can be used to divide the subject property into 500 to 700-acre parcels, and can designate each block as a village type. Because each village would have a specific economic and lifestyle development profile, it can then be aligned with the economic and lifestyle preferences of North Las Vegas and Valley residents. Village typing can then be used to accelerate absorption at the subject property. Furthermore, as North Las Vegas and the

Valley's economies evolve, the mix of village types at the subject property can be adjusted accordingly. Before the process of mixing and designating villages begins at the subject property, two crucial questions must be answered. The answers will determine the finished product and the ultimate future of the subject property.

- First, to what degree does North Las Vegas want to align the mix of villages in the subject property with existing as opposed to anticipated market conditions?

- Second, what level of quality or standard of primary and integrated arterial road design and edge condition does North Las Vegas desire and is willing to help pay for?

These factors will dictate the mix of villages, the quality of development and ultimate future of the subject property. If the overall mix is to be aligned with the evolving economic profile of the Valley, the villages are mixed according to historical and anticipated economic patterns. If the mix is to be aligned with something other than a changing economy, that profile must be defined. When these requirements have been satisfied, a series of village strategies can be developed. Once the series of village strategies are developed, the number should be narrowed to three or four. Assuming one of the strategies is preferred, the village typing can then move into detailed project planning.

By using this process, the subject property's absorption will be accelerated, meeting the goals of the BLM of protecting property values and meeting North Las Vegas' goals for establishing a diverse and market supportable development strategy. This approach should minimize development risk, while reducing the socioeconomic conflicts that traditional land planning promotes.

TABLE VI-1: RESIDENTIAL VILLAGE TYPING LAND USE ALLOCATION MODEL

			Acreage Allocation Percentages by Land Use									
Village Type	Density Per Acre	Number of Units Village	Streets, Edge Condition	Open & Space	"For Sale"	Apartments	Total	Retail	Office	Industrial	Public & Schools	Estimated Costs Per Foot
Typical Subdivision	5.4 to 5.7	1,800 to 2,200	32% to 38%	1% to 2%	45% to 50%	7% to 10%	52% to 60%	3% to 4%	None	None	2% to 3%	$0.35 to $0.45
Rural	.25 to .75	100 to 300	28% to 34%	1% to 2%	60% to 70%	None	60% to 70%	1% to 2%	None	None	1% to 2%	$0.30 to $0.40
Traditional Non-Amenity	5.25 to 6	2,400 to 3,100	28% to 34%	1% to 2%	45% to 50%	10% to 15%	55% to 65%	3% to 4%	None	None	3% to 4%	$0.50 to $0.60
Traditional Amenity	4.75 to 5.25	1,550 to 1,700	28% to 32%	10% to 20%	33% to 45%	7% to 10%	47% to 55%	3% to 4%	None	None	3% to 4%	$0.70 to $0.90
Luxury	2 to 3	500 to 650	35% to 40%	30% to 40%	20% to 35%	None	20% to 35%	None	None	None	None	$1.25 to $1.35
Active Adult	4.75 to 5.25	1,400 to 1,550	28% to 32%	20% to 25%	42% to 50%	None	20% to 35%	1% to 2%	None	None	None	$1.25 to $1.35
Resort	3 to 3.5	200 to 800	28% to 32%	30% to 40%	10% to 35%	Time Share	17% to 38%	1% to 15%	3% to 4%	None	None	$1.35+
Urban	6+	2,400 to 3,100	25% to 28%	5% to 10%	10% to 30%	15% to 20%	25% to 50%	5% to 10%	10% to 15%	1% to 2%	5% to 10%	$0.80 to $1.00

Note: In a regional or city model there are an additional 7 village type:

Central Business Village
Service Commercial Village
Industrial Village
Institutional / Campus Village
Affordable / Subsidize Housing Village
Redevelopment Village
Military / Airport Village

Source: DES & Associates, Inc.

TABLE VI-2: RESIDENTIAL MARKET SEGMENTATION MODEL

			Village Type						
Residential Market Segments & Niches	**Average Lot Size / Net Density Per Acre**	**Size (S.F.) Range**	**Rural**	**Trad Non Amenity**	**Trad Amenity**	**Luxury**	**Active Adult**	**Resort**	**Urban**
Single Family Detached									
Semi Custom	15,000 / 2.0	4,000 to 8,000				X			
Luxury	12,500 / 2.5	3,500 to 6,500			X	X		X	X
Executive	9,500 / 3.0	2,400 to 5,000		X	X	X	X	X	X
Upgrade	6,500 / 4.5	1,900 to 3,400		X	X		X	X	X
Move-up	5,500 / 5.5	1,400 to 2,500	X	X	X		X		X
Entry Level	4,500 / 6.0	1,250 to 1,800	X	X	X		X		X
Manufactured Housing	3,500 / 8.0	850 to 1,250	X				X		
Single Family Attached									
Penthouse	5.0	3,500 to 8,000				X		X	X
Luxury	2.5	1,800 to 2,500			X	X		X	X
Executive	5.0	1,400 to 1,800		X	X	X	X	X	X
Upgrade	8.0	1,200 to 1,650		X	X		X		X
Move-up	15.0	1,000 to 1,250		X	X		X		X
Entry Level	18.0	750 to 1,250		X			X		X
High Rise	30+	550 to 8,000							X
Apartments									
Luxury	15.0	750 to 1,450		X	X		X	X	
Upgrade	18.0	750 to 1,250		X	X			X	
Entry Level	21.0	750 to 1,000		X	X				
Custom Lot Programs									
Compound - 1 ½-15 Ac						X		X	X
1/2 Acre				X	X	X		X	X
1/4 to 1/3 Acre					X	X		X	X
1/4 Acre				X	X				
2 - 5 Acre			X						
10 to 20 Acre			X						
20+ Acre			X						

Source: DES & Associates, Inc.

APPENDIX
STANDARD ASSUMPTIONS AND LIMITING CONDITIONS

1. Restrepo Consulting Group LLC ("RCG") prepared, from informstion provided by the Bureau of Land Management ("the BLM") and other third parties, the Market Study ("MS") and summaries of significant assumptions related to the development of the ANC' 7,500-acre parcel in North Las Vegas, Nevada ("the Subject Property"). We do not express any guarantees that the absorption projections associated with the Subject Property will be realized, given the uncertainties of future events.

2. This MS involves assembling land use absorption estimates for the Subject Property by RCG from our intennal databases and third-party sources. Our work effort involved performing certain other procedures with respect to the MS, and the absorption estimates, without expressing any other form of assurance on the assumptions underlying them.

3. The MS presentd, to the best of your knowledge and belief, the BLM's expected planning strategies during the analysis period. The MS is also based on the City's land use assumptions, reflecting conditions it expects to exist and the course of action it expects to take during the analysis period, assuming the hypothetical assumptions developed during the course of this engagement.

4. The BLM and the City are responsible for representations about their plans and expectations for the Subject Property, and for disclosure of significant information that might affect the ultimate realization of the MS results.

5. Our report is based on historical and current real estate market, demographic, and economic information. Therefore, the actual results achieved during the Subject Property's absorption period may vary from the results of our analysis. Thus, variations could be material and have an impact on the conclusions stated in our report Even if the hypothetical assumptions were to occur, there will usually be differences between the estimated and actual results, because events and circumstances frequently do not occur as expected, and those differences may be material. These could include major changes in the economic and real estate market conditions; significant increases or decreases in mortgage interest rates and/or terms or availability of financing altogether; property assessment; and/or major revisions in current state and/or federal tax or regulatory laws.

6. The results of the MS stated in our report apply only to the effective date of the report. The Site's development potential will be affected by many related and unrelated economic conditions within a local, regional, national, and/or world context. We assume no liability for an unforeseen change in the economy, or in the Subject Property, or, if applicable, the inability to find buyers. Accordingly, we have no responsibility to update our report for events and circumstances occurring after the date of our report.

7. Information, estimates and opinions furnished to us and contained in our report, or utilized in the formation of the MS were obtained from third party sources considered reliable and believed to be true and correct. However, no representation, liability, or warranty for the accuracy of such items is assumed by or imposed on us, and are subject to corrections, errors, omissions and withdrawal without notice.

8. The working papers for this engagement will be retained in the RCG's files and will be made available for your reference. We will make therm available to support the MS as required. Those services will be performed for an additional professional fees.

9. The absorption estimates in the MS may not be used in conjunction with any other study. The conclusions stated in our report are based on the hypothetical land use plan developed for the Subject Property by the City, and may not be separated into parts. The analysis was prepared solely for the purpose, function, and parties so identified in this engagement letter.

10. The BLM understands and agrees that our report is not intended to be, and will not be used in connection with a real estate syndication.

11. Good and marketable title to the Subject Property's 7,500 cres were assumed. We are not qualified to render an "opinion of title," and no responsibility is assumed or accepted for matters of a legal nature affecting the Subject Property. No investigation of legal title were made, and we render no opinion as to ownership of the Subject Property or condition of its title.

12. It was assumed that the City's master plan is contained within the boundaries or property lines of the Subject, and that there are no encroachments, easements, or trespasses, unless noted within our report. We did not make a survey of the acreage covered by the Subject Property, and no responsibility is assumed in connection with any matter that may be disclosed by a proper survey. If a subsequent survey should reflect a differing land area and/or frontages, RCG reserves the right to change the final MS report, at the expense of the BLM.

13. All maps, plats, site plans, or photographs that were incorporated into our report are for illustrative purposes only, to assist the reader in visualizing the land use plan, but are not guaranteed to be exact.

14. It is assumed that the Subject Property's development will be implemented by competent management, and that Subject Property ownership will be in responsible hands. The quality of management can have a direct effect on a project's economic viability. The MS and our report thereon will assume both responsible ownership and competent management unless noted otherwise. Any variance from this assumption could have a significant effect on the Subject Property.

15. We assumed that there are no hidden or unapparent conditions relating to the Subject Property's soil or subsoil that will render the Subject Property more or less developable. No responsibility is assumed for such conditions, or for engineering that might be required to discover such factors.

16. The existence of potentially hazardous material on the Subject Property's acreage, such as the presence of asbestos, lead paint, toxic waste, underground tanks, and/or any other prohibited material or chemical, which may or may not be present on or in the subject acreage, was not evaluated by RCG. The existence of these potentially hazardous materials may have a significant effect on the development of the Subject Property. The BLM is urged to retain an expert in this field, if desired. Our report will assume that the Subject Property's acreage is "clean" and free of any of these adverse conditions unless we are notified to the contrary in writing.

17. Unless otherwise specifically stated in our report, no effort was made to determine the possible effect, if any, on the Subject Property of future Federal, state or local legislation, including any environmental or ecological matters or interpretations thereof.

18. We did not perform an audit, review or examination or any other attest function (as defined by the AICPA) regarding any of the historical and current market information used or included in the report; therefore, the RCG does not express any opinion or any other form of assurance with regard to the same, in the context of our report.